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ABSTRACT

Canada's 1970 decision to move to international metric measures is discussed in this radio script. Reasons for the decision are described. The effects of the changeover on everyday life are noted. Metric vocabulary and relationships between units are mentioned. (DT)

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FOR CANADIANS TODAY AS FOR BELIZEANS TOMORROW

"METRIC" PROMISES A SOUNDER, SIMPLER WORLD

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A Second Talk on Measurement Standards and on Metric Conversion

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Written and Recorded in Canada
for Broadcast on Radio Belize

Recorded at CKCL, Truro
24 February 1977

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by

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EVENTS DESTINED TO CHANGE MEN'S LIVES DO NOT ALWAYS MAKE THE HEADLINES, OR EVEN GENERATE MUCH PASSING COMMENT, AT THE OUTSET. SUCH ATTENTION MAY COME LATER; OR, IF CHANGE IS GRADUAL AND NONPROVOCATIVE, MAY NEVER BE REALLY WELL FORMULATED. THE EXAMPLE WHICH I PROPOSE THAT WE CONSIDER--IT HAS BEEN OF INTEREST TO ME IN MY WORK AS AN EDUCATOR IN CANADA--IS NATIONAL COMMITMENT TO METRIC CONVERSION. IN THE CASE OF CANADA, DECISION TO SHIFT TO INTERNATIONAL METRIC MEASURES, IN THE FACTORY, THE MARKETPLACE, THE SCHOOLROOM, EVEN THE KITCHEN WAS TAKEN, AT FEDERAL LEVEL, IN 1970 . . . AND GENERATED, AT THE TIME, NO HEADLINES AND VERY LITTLE COMMENT. EACH POLITICAL PARTY CONCEDED THAT THE MOVE WOULD BE IN THE NATIONAL INTEREST. TEACHERS WERE QUICK TO NOTE THAT THERE WOULD BE REAL ADVANTAGES IN THE CLASSROOM . . . IN A MEASUREMENT SYSTEM WHICH, LIKE COUNTING, WAS BASED ON TENS. IN THE SEVEN YEARS SINCE CANADA'S ANNOUNCED COMMITMENT, MUCH HAS BEEN HAPPENING, OF COURSE--PRINCIPALLY IN INDUSTRIAL SECTORS AND IN TERMS OF LONGER-RANGE PLANNING AND CO-ORDINATION. OF LATE, HOWEVER, "GOING METRIC" INCREASINGLY HAS BEEN TAKING ON MEANING FOR CANADA'S "MAN IN THE STREET." THE PROCESS OF METRIC CONVERSION ESSENTIALLY, OF COURSE, IS ONE OF CHANGING ESTABLISHED AND RELATIVELY FUNDAMENTAL THOUGHT PATTERNS, AND THE WAYS IN WHICH CANADA AND OTHER COUNTRIES WILL APPROACH THIS, AND THE DEGREE OF SUCCESS WITH WHICH THEIR EFFORTS WILL BE MET, SHOULD BE

OF VERY REAL INTEREST.

CANADA'S 1970 DECISION TO MOVE TO INTERNATIONAL METRIC MEASURES GENERATED LITTLE CONTROVERSY AT THE TIME . . . FOR A MAJOR INDUSTRALIZED NATION ENGAGED IN INTERNATIONAL TRADE AND SEEKING WORLD MARKETS, IT SIMPLY MADE SENSE. TEN YEARS EARLIER, THE MOVE WOULD HAVE BEEN VISIONARY . . . SOME WOULD SAY PREMATURE, GIVEN AMERICAN APPARENT INDIFFERENCE. FIVE OR TEN YEARS LATER, ON TOWARD 1980,. . . SUCH A DELAY COULD HAVE BEEN DISASTROUS, GIVEN A METRIC EUROPEAN COMMON MARKET, COMMITMENT IN AUSTRALIA, NEW ZEALAND, AND OTHER TRADING PARTNERS, AND STRONG MOVEMENT TO METRIC IN AMERICAN MULTINATIONAL OPERATIONS. THE TIME WAS RIGHT. IT MAKES LITTLE SENSE FOR CANADIANS (OR ANYONE, REALLY) TO MANUFACTURE AND RECKON IN ONE SYSTEM FOR THE HOME MARKET, AND ANOTHER FOR EXPORT. THIS WAS GENERALLY UNDERSTOOD.

PATTERNS OF WORLD TRADE HAD SHIFTED RADICALLY SINCE WORLD WAR II, OF COURSE--FOR CANADIANS AND FOR VIRTUALLY ALL NATIONS. EUROPE HAD BECOME A TRADING BLOCK; "EMERGING NATIONS" OF AFRICA AND ASIA SIGNIFICANT MARKETS. WITH CHANGE HAD COME NEW ALIGNMENTS AS TO SYSTEMS AND PRACTICES OF MEASUREMENT. JAPAN, IN ITS NEW RESURGENCE, SHIFTED STRONGLY TO METRIC. THE INDIAN SUBCONTINENT CAREFULLY AND THOROUGHLY ADOPTED METRIC STANDARDS. BY THE 1960s THE ENGLISH-SPEAKING WORLD--THE BRITISH COMMONWEALTH AND THE UNITED STATES OF AMERICA--WAS ALL BUT ALONE IN ADHERENCE TO TRADITIONAL, NON-DECIMAL MEASURES. THOSE

DAYS WERE NUMBERED. IN 1965 BRITAIN OPTED FOR, IN THEIR TERM, "METRIFICATION." THE EUROPEAN ECONOMIC COMMUNITY WAS TO BE A METRIC ENTITY, OF COURSE. THE REPUBLIC OF SOUTH AFRICA SET OUT TO CONVERT TO INTERNATIONAL MEASURES WITH AN EFFICIENCY AND THOROUGHNESS THAT MIGHT SERVE AS A WORLD STANDARD. AUSTRALIA, NEW ZEALAND, AND CANADA INVESTIGATED, PLANNED, SCHEDULED . . . AND SOUGHT PUBLIC SUPPORT FOR OPTIMAL TIME-LINES FOR ORDERLY, SYSTEMATIC CONVERSION. OTHER NATIONS HAVE FOLLOWED THE LEAD. BY 1970 THE AMERICANS, THE ONLY MAJOR HOLDOUT, COULD NOTE (AND DID) THAT NINETY-FIVE PER CENT OF THE HUMAN RACE DWELT IN "METRIC" COUNTRIES OR IN COUNTRIES COMMITTED TO METRIC CONVERSION. AT THE HIGHEST LEVELS, LEGISLATURE, GOVERNMENT GRANTS, STATE RESOLUTIONS, AMERICAN COMMITMENT NOW EXISTS. MAJOR COMPANIES--THE MULTINATIONALS--IN PARTICULAR ARE LOOKING TO SOLELY METRIC INVENTORIES . . . A METRIC TOMORROW. IT'S NOT JUST THE BIG COMPANIES, OF COURSE: WHEN GENERAL MOTORS TALKS METRIC (AND IT DOES), TEN THOUSAND CONTRACTORS AND SUBCONTRACTORS FOLLOW SUIT.

EVEN TODAY, SEVEN YEARS INTO PLANNED CONVERSION, CANADA'S METRIC CHANGEOVER IS SOMEWHAT AKIN TO THE PROVERBIAL ICEBERG--MOSTLY BENEATH THE SURFACE. TRUE, WEATHER DATA IS IN METRIC LANGUAGE, HIGHWAY SIGNS ARE INCREASINGLY IN METRIC, AND SUGAR AND FLOUR, TYPICALLY, COME PACKAGED IN KILOGRAMS AND ICE CREAM IN LITRES. MOST OF WHAT HAS BEEN HAPPENING, THOUGH, HAS CONCERNED INDUSTRIAL SECTORS AND LONGER-RANGE PLANNING, MORE SO THAN THE

SHOPPING BASKET AND THE KITCHEN CUPBOARD. BUT THE MARKET-PLACE HAS BEEN ANYTHING BUT UNINTERESTING, IF ONLY BECAUSE THAT'S WHERE CANADIANS HAVE HAD MANY OF THEIR INITIAL "METRIC" EXPERIENCES.

BY AND LARGE, FOR CANADIANS, THE NEIGHBOURHOOD DRUGSTORE HAS BECOME THE MOST METRIC OF PLACES TO SHOP. A CANADIAN DRUGSTORE, OF COURSE, IS MUCH LIKE ITS AMERICAN COUNTERPART--LUNCH COUNTER, SOUVENIRS, SNACK FOODS, TOYS AND GAMES, COSMETICS, AND PATENT "REMEDIES" NORMALLY QUITE OVERSHADOWING THE PRESCRIPTION COUNTER IN THE REAR. "LICENSED TO SELL DRUGS AND POISONS," THE RATHER APT BELIZIAN SIGN OF THE DRUGSTORE, HAS NO CANADIAN EQUIVALENT, YOU UNDERSTAND! VERY LIKELY BECAUSE OF TRADITIONAL CLOSE TIES TO THE SCIENCES, THE PHARMACEUTICAL INDUSTRY IN CANADA WAS ONE OF THE FIRST TO GO METRIC. GRAINS, SCRUPLES, PENNYWEIGHTS, AND FLUID OUNCES GAVE WAY TO GRAMS AND MILLILITRES, WITH LITTLE OR NO DIFFICULTY. IN MOST CASES, YOU REALIZE, THE CUSTOMER NEVER READ THE LABEL--JUST REACHED FOR THE APPROXIMATE SIZE THAT HE NEEDED OR WANTED. HOWEVER, FOR THOSE WHO DO HABITUALLY READ LABELS AND THOSE WHO COMPARE PRICES, REAL SIMPLIFICATION AND ECONOMIZATION WAS ON OCCASION TO BE NOTED. IN TOOTHPASTE, THE MOST QUOTED EXAMPLE, SOME TWENTY-NINE SIZES OF TUBES THAT HAD BEEN ON THE MARKET WERE REPLACED BY EXACTLY FIVE. FROM THE 25 MILLILITRE "INDIVIDUAL" SIZE, THROUGH 50, 75, 100, AND 150 MILLILITRES (THE "FAMILY SIZE"), MERCHANDISING BECAME MORE SENSIBLE AND COMPARISON SHOPPING RELATIVELY STRAIGHTFORWARD. FOR AN INCREASING DIVERSITY OF DRUGSTORE PRODUCTS,

METRIC SIZES--ROUND-NUMBER METRIC SIZES WITH "METRIC ONLY" ON THE LABEL--ARE BECOMING THE RULE. INCREASINGLY, DOCTORS' PRESCRIPTIONS ARE BEING WRITTEN IN METRIC UNITS--MILLILITRES, FOR EXAMPLE, INSTEAD OF MINIMS. HOSPITALS, TOO, CAN BE VERY METRIC PLACES, WITH PATIENTS' HEALTH RECORDS COMMONLY BEING MAINTAINED IN SOLELY METRIC MEASURES . . . HEIGHT IN CENTIMETRES, MASS IN KILOGRAMS, BODY TEMPERATURE IN DEGREES CELSIUS.

GROCERY STORES IN CANADA HAVE BEGUN TO SEE "HARD CONVERSION" (AS IT IS CALLED)--THE SHIFT TO ROUNDED METRIC SIZES . . . A LITRE OF SHERBERT, 500 GRAMS OF ICING SUGAR, 2 KILOGRAMS OF FLOUR. BUT IN THE SHOPS, IN CANADA AS IN BELIZE, "DUALITY" (LABELLING IN BOTH OLD AND METRIC UNITS, USUALLY IN OLD SIZES) HAS BECOME THE MORE USUAL PRACTICE. THUS, DRESS PATTERNS IN NORTH AMERICA MAY BE DIMENSIONED IN INCHES AND CENTIMETRES . . . SOFT DRINKS IN FLUID OUNCES (IMPERIAL OR AMERICAN) AND MILLILITRES . . . AND CHOCOLATE BARS IN OUNCES AND GRAMS. FOR CANADIANS, OTHER MERCHANDISING HAS NOT REALLY CHANGED--YET. GASOLINE PUMPS READ OUT IN IMPERIAL GALLONS (AND TENTHS OF A GALLON), THOUGH THE MOTORIST IS PERHAPS MORE LIKELY TO WATCH THE CLICKING OVER OF DOLLARS AND CENTS. FUTURE READOUT WILL, OF COURSE, BE IN LITRES. LAND AREA CURRENTLY IS MEASURED IN ACRES AND SQUARE MILES, THOUGH LIMITED USE ALREADY IS BEING MADE OF THE HECTARE AND SQUARE KILOMETRE. LATEST TOPOGRAPHIC MAPS, FOR EXAMPLE, SHOW A SQUARE KILOMETRE GRID . . . AND, AWAITING RESURVEYING, CONTOUR INTERVALS EXPRESSED IN FEET.

TALKING ABOUT THE WEATHER, FOR MOST CANADIANS, HAS BECOME AN INCREASINGLY METRIC ACTIVITY, AND WITH GOOD REASON. GOVERNMENT WEATHER DATA, AS PUBLISHED AND AS BROADCAST, FOR SOME TIME NOW HAS BEEN FEATURING, IN GENERAL, APPROPRIATE METRIC UNITS. TEMPERATURE, ACTUALLY, WAS THE FIRST TO CHANGE, TO THE CELSIUS SCALE, FORMERLY CALLED CENTIGRADE. THE CHANGEOVER (IN TEMPERATURE SCALES) WAS PLANNED TO TAKE PLACE OVER A PERIOD OF WEEKS, AND ESSENTIALLY DID, ALTHOUGH, TWO YEARS LATER, MANY HOMES STILL CHERISH THEIR FAHRENHEIT THERMOMETERS. RAINFALL NOW IS GIVEN IN MILLIMETRES--RATHER THAN DECIMALS OF AN INCH--AND SNOWFALL IN CENTIMETRES. WINDSPEEDS ARE KILOMETRES PER HOUR. BAROMETRIC PRESSURE IS KILOPASCALS.

ROADSIGNS WILL READ KILOMETRES IN A METRIC CANADA. A FEW DO TODAY, BUT THEIR PRIMARY PURPOSE IS TO PROMOTE AWARENESS OF CHANGE TO COME. SPEED LIMITS WILL BE STATED AS KILOMETRES PER HOUR. THEY'LL NOT BE TOO DIFFERENT, OF COURSE, JUST A NEW NAME, SENSIBLY ROUNDED, FOR A REALISTIC MAXIMUM SPEED. ACTUALLY, ADOPTION OF METRIC ROADSIGNS FOR MAJOR HIGHWAYS OF THE NATION IS ANTICIPATED FOR LATER THIS YEAR.

TO AN EXTENT, A METRIC CANADA MEANS A NEW MEASUREMENT VOCABULARY FOR CANADIANS--ALTHOUGH, OF COURSE, WORDS LIKE CENTIMETRE AND KILOGRAM SHOULD BE FAMILIAR FROM EXPERIENCE IN SCHOOL MATHEMATICS AND SCIENCE. RELATIVELY FEW NEW WORDS WILL BE NECESSARY--AND THE RELATIONSHIP AMONG SUCH TERMS HAS A PARTICULARLY ATTRACTIVE SIMPLICITY. MILLI-

METRE, CENTIMETRE, METRE, KILOMETRE . . . EACH IS RELATED TO THE OTHERS BY A SIMPLE TENS FACTOR. ONE HUNDRED CENTIMETRES MAKE ONE METRE . . . ONE THOUSAND METRES, ONE KILOMETRE. SUCH TRADITIONAL CONVERSION FACTORS AS TWELVE, SIXTEEN, FIVE-TWO-EIGHT-OH, NO LONGER ARE NEEDED. MEASUREMENT, LIKE COUNTING ITSELF, WILL RECKON BY TENS . . . AND DIVIDE TO TENTHS (IDEALLY). INDEED, MUCH OF THE MANIPULATIVE WORK WITH FRACTIONS THAT HAS OCCUPIED SCHOOL MATHEMATICS WILL NEED TO BE CAREFULLY RECONSIDERED. INCREASINGLY, WE ARE MOVING TO A DECIMAL TYPE OF WORLD.

INTERNATIONAL COLLABORATION CONTINUES IN DEFINING WORLD STANDARDS IN MODERN METRIC TERMS. THESE ARE GOING TO AFFECT US, WHEREVER WE LIVE. BELIZE TODAY, INTERESTINGLY, CAN BE LOOKED UPON AS AN ISLAND OF ENGLISH MEASUREMENT TRADITION, SURROUNDED BY METRIC . . . NOT CURRENT, INTERNATIONAL METRIC, NECESSARILY, BUT A WELL-ESTABLISHED METRIC HERITAGE. OVER THE YEARS, AS CHANGE COMES TO MEASUREMENT PRACTICES IN BELIZE, IT NO DOUBT WILL REFLECT CHANGE IN THE UNITED KINGDOM, THE UNITED STATES, THE LARGER WORLD COMMUNITY, TO AT LEAST AS GREAT AN EXTENT AS THE INFLUENCE OF TRADE WITH NEIGHBOURING METRIC NATIONS. WHAT IS FORTHCOMING WILL BE, ALL IN ALL, A SOUNDER, SIMPLER WORLD. MOST OF US, TO A DEGREE, WILL HAVE TO RELEARN--WHICH SELDOM IS EASY. PLANNING AND DECISIONS WILL BE NECESSARY . . . TO MAKE THE MOST OF OPPORTUNITY FOR IMPROVEMENT AND SIMPLIFICATION. THE YOUNG WILL THRIVE ON IT--THAT HAS BEEN ABUNDANTLY DEMONSTRATED. BUT IT SHOULD BE A UNIQUELY INTERESTING

EXPERIENCE FOR US ALL. AT NOVA SCOTIA TEACHERS COLLEGE, DON ALLEN SPEAKING FOR RADIO BELIZE.

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